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SEQUENCE LISTING

(1) GENERAL INFORMATION:

- 5 (i) APPLICANT:
(A) NAME: Margaret Ann Johns
(B) STREET:
(C) CITY:
(D) STATE:
10 (E) COUNTRY:
(F) POSTAL CODE (ZIP):
(G) TELEPHONE:
(H) TELEFAX:
- 15 APPLICANT:
(A) NAME: Brian Jay Moldover
(B) STREET:
(C) CITY:
(D) STATE:
20 (E) COUNTRY:
(F) POSTAL CODE (ZIP):
(G) TELEPHONE:
(H) TELEFAX:
- 25 APPLICANT:
(A) NAME: James David Offord
(B) STREET:
(C) CITY:
(D) STATE:
(E) COUNTRY:
30 (F) POSTAL CODE (ZIP):
(G) TELEPHONE:
(H) TELEFAX:
- (ii) TITLE OF INVENTION: Alpha-2/Delta Gene
- 35 (iii) NUMBER OF SEQUENCES: 49
- (iv) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: Floppy disk
40 (B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
- (2) INFORMATION FOR SEQ ID NO: 1:
- 45 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- 50 (ii) MOLECULE TYPE: cDNA
- (ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: $\alpha 2\delta$ -B
- 55 (iii) MOLECULE TYPE: cDNA

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-2-

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

CGGGCAGCGCAGCCCGCAGAGGCGCTGCGGGCCCGTGCAGCCCCGGAGGCCCCCTCGCGGAGAAGGCG
GCGGCGGAGGAGAGGCGGAGTTACCGCCCGCCGCCCCGCGCCCCCAACCCCGCCGCGCGCGCGC
5 CGCCGCCACTGCCCCCCTCCCCGCGGCGCCGCATCTTGAATGGAAACATGGCGGTGCCGGCTCGG
ACCTGCGGCGCCTCTCGGCCCCGGCCAGCGCGGACTGCGCGCCCCCTGGCCCGGCTGCGGCCCCC
CCTGGCCCCGGCACCCGGCGCCGACGTCCGGGCCCCCGCGCCCCGCTGTGGCTGCTGCCGCTT
CTACCGCTGCTCGCCGCCCCCGGCGCCTCTGCCTACAGCTTCCCCCAGCAGCACACGATGCAGCAC
10 TGGGCCCCGGCGTCTGGAGCAGGAGGTGACGGCGTGATGCGGATTTTGGAGGCGTCCAGCAGCTC
CGTGAGATTTACAAGGACAACCGGAACCTGTTGAGGTACAGGAGAATGAGCCTCAGAAGTTGGTG
GAGAAGGTGGCAGGGGACATTGAGAGCCTTCTGGACAGGAAGGTGCAGGCCCTGAAGAGACTGGCT
GATGCTGCAGAGAACTTCCAGAAAGCACACCGCTGGCAGGACAACATCAAGGAGGAAGACATCGTG
TACTATGACGCCAAGGCTGACGCTGAGCTGGACGACCTGAGAGTGAGGATGTGGAAAGGGGGTCT
AAGGCCAGCACCCCTAAGGCTGGACTTCATCGAGGACCCAACTTCAAGAACAGGTCAACTATTCA
15 TACGCGGCTGTACAGATCCCTACGGACATCTACAAAGGCTCCACTGTCATCCTCAATGAGCTCAAC
TGGACAGAGGCCCTGGAGAATGTGTTTATGAAAACCGCAGACAAGACCCACACTGCTGTGGCAG
GTCTTCGGCAGCGCCACAGGAGTCACTCGCTACTACCCGGCCACCCCGTGGCGAGCCCCAAGAAG
ATCGACCTGTACGATGTCCGAAGGAGACCCCTGGTATATCCAGGGGGCCTCGTACCCAAAGACATG
GTCATCATCGTGGATGTGAGTGGCAGTGTGAGCGGCCCTGACCCTGAAGCTGATGAAGACATCTGTC
20 TGGAGATGCTGGACACGCTGTCTGATGATGACTATGTGAATGTGGCCTCGTTCAACGAGAAGGCA
CAGCCTGTGTGCTTACACACCTGGTGCAGGCCAATGTGCGCAACAAGAAGGTGTTCAAGGAA
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CAGCTGCAGAACTCCAACATCACTCGGGCCAAGTGAACAAGATGATCATGATGTTACGGATGGT
GGTGAGGACCGCGTGCAGGACGCTTTGAGAAGTACAATTGGCCAAACCGGACGGTGCCTGCTTT
25 ACTTTCTCCGTGGGGCAGCATAACTATGACGTACACCCGCTGCAGTGGATGGCTGTGCCAACAAA
GGCTACTATTTTGAATCCCTTCCATCGGAGCCATCCGCATCAACACACAGGAATATCTAGATGTG
TTGGGCAGGCCCATGGTGCTGGCAGGCAAGGAGGCCAAGCAGGTTCAAGTGGACCAACGTGTATGAG
GATGCACTGGGACTGGGGTTGGTGGTAACAGGGACCTCCCTGTTTTCAACCTGACACAGGATGGC
CCTGGGGAAAAGAAGAACCAGCTGATCCTGGGCGTGATGGGCATTGACGTGGCTCTGAATGACATC
30 AAGAGGCTGACCCCAACTACACGCTTGGAGCCAACGGCTATGTGTTGCCATTGACCTGAACGGC
TACGTGTTGCTGCACCCCAATCTCAAGCCCCAGACCACCAACTTCCGGGAGCCTGTGACTCTGGAC
TTCCTGGATGCGGAGCTAGAGGATGAGAACAAGGAAGAGATCCGTGCGGAGCATGATTGATGGCAAC
AAGGGCCACAAGCAGATCAGAACGTTGGTCAAGTCCCTGGATGAGAGGTACATAGATGAGGTGACA
CGGAACCTACACCTGGGTGCTTATAAGGAGCACTACAGCCTGGGGCTGGTGTCTCCACCCCTAC
35 AGCACCCTTACCTCCAAGCCAATCTCAGTGACCAGATCCTGCAGGTCAAGTATTTTGAAGTCTCTG
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AATGCCCTCAGACAACAACACCGAGTTCTGAAAACTTTATTGAGCTCATGGAGAAAGTGACTCCA
GACTCCAAGCAGTGCAACAACCTTCTTCTGCACAACCTGATCTTGGACACGGGCATCACGCAGCAG
CTGGTAGAGCGTGTGTGGAGGGACCAGGATCTCAACACGTACAGCCTACTGGCCGTGTTTCGCTGCC
40 ACAGACGGTGGCATCACCCGAGTCTTCCCCAACAAGGCAGCTGAGGACTGGACAGAGAACCCTGAG
CCCTTCAATGCCAGCTTCTACCGCCGACGCTGGATAACCACGGTTATGTCTTCAAGCCCCACAC
CAGGATGCCCTGTTAAGGCCGCTGGAGCTGGAGAATGACACTGTGGGCATCCTCGTCAGCAGCT
GTGGAGCTCAGCCTAGGCAGGCGCACACTGAGGCCAGCAGTGGTGGGCGTCAAGCTGGACCTAGAG
GCTTGGGCTGAGAAGTTCAAGGTGCTAGCCAGCAACCGTACCCACCAAGACCAGCCTCAGAAGTGC
45 GGCCCCAACAGCCACTGTGAGATGGACTGCGAGGTTAACAATGAGGACTTACTCTGTGCTCCTCATT
GATGATGGAGGATTCTGGTGCTGTCAAACCAGAACCATCAGTGGGACCAGGTGGGCAGGTTCTTC
AGTGAGGTGGATGCCAACCTGATGCTGGCACTCTACAATAACTCCTTCTACACCCGCAAGGAGTCC
TATGACTATCAGGCAGCCTGTGCCCCCTCAGCCCCCTGGCAACCTGGGTGCTGCACCCCGGGGTGTC
TTTGTGCCACCGTTGACAGATTTCTTAACTGGCCTGGTGGACCTCTGCTGCCGCTGGTCCCTG
50 TTCCAGCAGCTTCTTACGGCCTCATCTACCACAGCTGGTTCCAAGCAGACCCCGCGGAGGCCGAG
GGGAGCCCCGAGACGCGGAGAGCAGCTGCGTCAATGAAACAGACCCAGTACTACTTCCGCTCGGTA
AACGCCTCCTACAACGCCATCATCGACTGCGGAAACTGCTCCAGGCTGTTCCACGCGCAGAGACTG
ACCAACCAATCTTCTCTTTGTGGTGGCCGAGAAGCCGCTGTGCAGCCAGTGCGAGGCTGGCCGG
CTGCTGCAGAAGGAGACGCACTGCCAGCGGACGGCCCCGAGCAGTGTGAGCTAGTGACAGAGACCG
55 CGATACCGGAGAGGCCCCGACATCTGCTTGCAGTACAACGCGACAGAAGATACCTCAGACTGTGGC
CGCGGGGCTCCTTCCCGCGCTCGTGGGCGTCTGGTCTCCCTGCAACTGCTGCTCCTCCTGGGC
CTGCCGCCCCGGCCGACGCTCAAGTCTCTCCACGCCTCTCGCCGCTCTGAGCACCTGCCCC
ACCCACCTCCACTCCACCTCACCCGGCCTCTTCGCTTTCCACCCCTCCTGCCCCACACTCCCC
GCCTTAGAGCCTCGTCCCTCCCTCACTGAAGGACCTGAGCTGGCCAGGCCCTGAGAGTCTGGTCTG

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CGCCTTGGGATGGGGAGTCCCAAAGCGGGACGCCGAGGTGTTTGGCACCCAAATCACATCTCACC
TCCGAAGTGTTCAGTGTCCCCAGACCTTCTTGCCTGCTGGGCTCCCCCAGTGGGATGGGACAG
GGAGGCCACACGCACTGGTGCCAAAACAGGCCCTCTGCTGCCGCCCTTCCTGGAGGCTGCCTATGT
TGGGGGGGACCCTGCCTCAGCTGACCCGGCCTCTCTGCCCCACCCAAGCCCAAACCTTGGTTTCTGT
5 GAGAATAGTGGAGGAAGGTGAGATGGCCAGTTTGAAGCCTGTGCCTCCCAGCTTAAATCCTAGCAG
GAGAGAGGCTCTGGGGCAGCCCCCATGGGCTCCTGCCCTTTCAGGCCTACAGCCACATCCCCAAG
CCCACCAGGTGTGAGGATAGTCACAGTGATACCAGTTCAGACACTACCCCATATACACCTGGAACA
TTGAGGATGGAACTGGACTCACATTGACATACCCCACTGGGCACACGCACAAACACACACACTA
10 TGGGGTGGGGTGGGTGTAGGGGCTTACAAAGCCTTACACAGGGCGAGGGGTGGTGGGAGGGTGG
CACCTGCACACTCCATCTCCTGCTCACCACCTGCCTCTAATCTGAGCTGCAGCCTGGCTGGTCTCTC
CCATTTCTAAAGCTGAATGTCAAACAGTGCCAAATGCTGGGGCAGGGGGTGAAGAACCCTCTGTCC
CACCCTAGCCACCACTGCTCCTCCAAGTGCCCCCTCACCTCTCCAGGTGCTCATTGTAACCATTTT
TCAC TAGTGTGAGGCCCGCCAGTGGGACCACATGCCACTGCCTGCACCTTTTCGGCAGAGGAACCCCC
15 ACCAGACATCACCTTTGCCTTAGCAGGGGTGACTTTGTCTCTCCTGGCTGGGCCATCCTTCCGCC
AATCTGGCCCTTACACACTCAGGCCTGTGCCCACTCCCTATCTCCTTCCCACCCCTACACACACAC
TCCCTGCTTGAGGAGGCCAACTGTCCCTCCCTTGCTGAACACACACACACACACACACACAG
GTGGGGACTGGGCACAGCTCTTACACCACTTCTGCTGATGTTTCCCCCAAAGGCATCCAGCCT
GGGGGCCAGTGGGGAAGTGGGGCAAGGGGATATAGTGATGGGGCTCAGATGGACTGGGAGGAGGG
GGAGGGTGATGCATTAATTAATGGCTTCGTTAATTAATGTCATGTTGCTTGTCTGCTTCTCAGTGT
20 GTGTGTGTGTTCCATGCCCACTGCTGGTGCCAGGTGGGTGTCATGTGCACCCGGCCTGGATGCC
AGCTGTGTCCTTCGGGGGCGTGCCTGTAAGTGTAGTGTAGTCAGGTGCTCAATGGAGAATATAAAC
ATATACAGAAAAATATATATTTTAAAGTTTAAAAAACAGAAAAACAGACAAAACAATCCCCATCAGG
TAGCTGTCTAACCCCACTGGGTCTAATCCTTCTCATTACCCACCCGACCTGGCTGCCCTCACC
TTGGGCTGGGGGACTGGGGGGCCATTTCTTTCTCTGCCCTTTTTTTTGTGTTCTATTTGTACA
25 GACAAGTTGAAAAACAACAGCGACAAAAAGTCAAGAACTTTGTAAATATCGTGTGTGTGATT
CCTTGTAATAATTTTCAAATGGTTTATTACAGAAGATCAGTTATTAATAATGTTTCATATTTTCA
CTTC

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

MAVPARTCGASRPGPARTARPWPGCGPHGPGTRRPTSGPPRPLWLLLPLLPLLAAPGASAYSFPQ
QHTMQHWARRLEQEVDGVMRI FGGVQQLREIYKDNRNLFQENEPQKLVEKVAGDIESLLDRKVQ
ALKRLADAAENFQKAHRWQDNIKEEDIVYYDAKADAELDDPESEDVERGSKASTLRDLDFIEDPNFK
NKVNYSYAAVQIPTDIYKGSTVILNELNWTEALENVFMENRRQDPTLLWQVFGSATGVTRYYPATP
WRAPKKIDLYDVRRRPWYIQGASSPKDMVIIVDVSGSVSGLTLKLMKTSVCEMLDLSDDDYVNVA
50 SFNEKAQPVSCFTHLVQANVRNKKVFKEAVQGMVAKGTTGYKAGFEYAFDQLQNSNITRANCNKMI
MMFTDGGEDRVQDVFQKYNWPNRTVRVFTFSVGQHNVDVTPLOWMACANKGYFEIPSIGAIRINT
QEYLDVLGRPMVLGKEAKQVQWTVNYEDALGLGLVVTGTLVPVFNLTQDGPGEKKNLILGVMGID
VALNDIKRLTPNYTLGANGYVFAIDLNGYVLLHPNLKPQTTFNREPVTLDLDAELEDENKEEIRR
SMIDGNKGHKQIRTLVKSLDERYIDEVTRNYTWVPIRSTNYSGLVLPYSTFYQLANLSDQILQV
55 KYFEFLLPSSFESSEGHVFIAPREYCKDLNASDNNTEFLKNFIELMEKVT PDSKQCNNFLLHNLILD
TGITQQLVERVWRDQDLNTYSLLAVFAATDGGITRVFPNKAEDWTENPEPFNASFYRRSLDNHGY
VFKPPHQDALLRPLELENDTVGILVSTAVELSLGRRTL RPAVVGVKLDLEAWAEKFKVLASNRTHQ

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DQPQKCGPNSHCEMDCEVNNEDLLCVLIDDGGFLVLSNQNHQWDQVGRFFSEVDANLMLALYNNSE
YTRKESYDYQAACAPQPPGNLGAAPRGVFPVPTVADFLNLAWWTSAAAWSLFQQLLYGLIYHSWFQA
DPAAEAGSPETRESSCVMKQTQYYFGSVNASYNALIDCGNCSRLFHAQRLTNTNLLFVVAEKPLCS
QCEAGRLLQKETHCPADGPEQCELVQRPRYRRGPHICFDYNATEDTSDCGRGASFPPSLGVLVSLQ
LLLLLGLPPRPQPQVLVHASRRL

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

TACTATAGGGCGGCCGGAATTCGGCACGAGGCGGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC
GCCCACCGCCCCGCTCCGCGCAGCTCCCCGCGGCCGCTCTCGTCGCCGCCGCGAGCGGGCGCGTCGGA
GGGAGCCCCAGCATGGCCGGGCGGGCTCGCCGCGCCGCGCGCTCCCGGGGGGCGCTCGGCGCTTCTCG
CTGCCGCGCTTCTCTACGCCGCGCTGGGGGACGTGGTGGCGCTCGGAGCAGCAGATACCGCTCTCCG
TGGTGAAGCTCTGGGCCCTCGGCTTTTGGTGGGAGATAAAATCCATTGCTGCTAAGTACTCCGGTT
CCCAGCTTCTGCAAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATGATGGCC
TCCAAGTGGTAAAGAAAGCTGGCAAAGAACATGGAAGAGATGTTTACAAAGAAAGTCTGAGGCCGTCA
GGCGTCTGGTGGAGGCTGCAGAAGAAGCACACCTGAAACATGAATTTGATGCAGACTTACAGTATG
AATACTTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTGGAGCTGGGAAAGG
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC
AAGTACCAACGAACATGTACAACAAAGACCCTGCAATTGTCAATGGGGTTTATTGGTCTGAATCTC
TAAACAAAGTTTGTAGATAACTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG
CAAAGGGCTTTTTTAGGCAGTATCCGGGGATTAAATGGGAACCAGATGAGAATGGAGTCATTGCCT
TCGACTGCAGGAACCGAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG
TTGACGTGAGTGGCAGCATGAAAGGACTCCGTCTGACTATCGCGAAGCAAACAGTCTCATCCATTT
TGGATACACTTGGGGATGATGACTTCTTCAACATAATTGCTTATAATGAGGAGCTTCACTATGTGG
AACCTTGCTGAATGGAATTTGGTGAAGCCGACAGGACAAACAAAGAGCACTTCAGGGAGCATC
TGGACAACTTTTCGCCAAAGGAATTGGAATGTTGGATATAGCTCTGAATGAGGCCTTCAACATTC
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG
GGCGGGTGGACACCTATGATACAATCTTTGCAAAATACAATTGGCCAGATCGAAAAGTTTCGCATCT
TCACATACCTCATTGGACGAGAGGCTGCGTTTGACAGACAATCTAAAGTGGATGGCCTGTGCCAACA
AAGGATTTTTTACCCAGATCTCCACCTTGCTGATGTGCAGGAGAATGTCATGGAATACCTTCACG
TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA
GCACTCTGACTGATGATCAGGGCCCCGTCCTGATGACCACTGTAGCCATGCCTGTGTTTAGTAAGC
AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCCAGTGAAAGAAC
TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACGGTTATGCCTTTGCAATCACAAATAATG
GRTATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA
ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA
TGGTGAATCGAAAGACGGGGAAGTTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAGGGAAACGGG
TTTTGGTGATGACAAATGACTACTATTATACAGACATCAAGGGTACTCCTTTCAGTTTAGGTGTGG
CGCTTTCAGAGGTGATGGGAAATATTTCTTCCGAGGGAAATGTAACCATCGAAGAAGGCCTGCATG
ACTTAGAACATCCCGATGTGTCTTGGCAGATGAATGGTCTACTGCAACACTGACCTACACCCTG
AGCACCGCCATCTGTCTCAGTTAGAAGCGATTAAGCTCTACCTAAAAGGCAGAAACCTCTGCTCC
AGTGTGATAAAGAATTGATCCAAGAAGTCCTTTTTGACGCGGTGGTGAGTGCCCCCATTGAAGCGT
ATTGGACCAGCCTGGCCCTCAACAAATCTGAAAATCTGACAAGGGCGTGGAGGTTGCCTTCTCTCG

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GCACCTCGCACGGGGCTCTCCAGAATCAACCTGTTTGTGCGGGGCTGAGCAGCTCACCAATCAGGACT
TCCTGAAAGCTGGCGACAAGGAGAACATTTTAAACGCAGACCATTTCCTCTCTGGTACCGAAGAG
CCGCTGAGCAGATTCCAGGGAGCTTCGTCTACTCGATCCCATTACGCACTGGACCAGTCAATAAAA
GCAATGTGGTGACAGCAAGTACATCCATCCAGCTCCTGGATGAACGGAAATCTCCTGTGGTGGCAG
CTGTAGGCATTACAGATGAACTTGAATTTTCCAAAGGAAGTTCTGGACTGCCAGCAGACAGTGTG
CTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGTGAATTGTTACCTCATAGACA
ATAATGGATTTATTTTGGTGTCTGAAGACTACACACAGACTGGAGACTTTTTTGGTGAGATCGAGG
GAGCTGTGATGAACAAATTGCTAACAATGGGCTCCTTTAAAGAATTACCTTTTATGACTACCAAG
CCATGTGTAGAGCCAACAAGGAAAGCAGCGATGGCGCCCATGGCCTCCTGGATCCTTATAATGCCT
TCCTCTCTGCAGTAAATGGATCATGACAGAACCTTGTCTTGTTCCTGGTGAATTTAACCTCTGCA
GTTGGTGGCACTCCGATATGACAGCTAAAGCCCAGAAATTGAAACAGACCCTGGAGCCTTGTGATA
CTGAATATCCAGCATTTCGTCTCTGAGCGCACCATCAAGGAGACTACAGGGAATATTGCTTGTGAAG
ACTGCTCCAAGTCCTTTGTCTATCCAGCAAATCCCAAGCAGCAACCTGTTTCATGGTGGTGGTGGACA
GCAGCTGCCTCTGTGAATCTGTGGCCCCCATCACCATGGCACCCATTGAAATCAGGTATAATGAAT
CCCTTAAGTGTGAACGTCTAAAGGCCCAGAAGATCAGAAGGCGCCGAGAAATCTTGTCTATGGCTTCC
ATCCTGAGGAGAATGCAAGGGAGTGTGGGGGTGCGCCGAGTCTCCAAGCCAGACAGTCTCCTCTTC
TGCTCCCTCTGCTTTTGTGCTCTTCTCAAGGTGACACTGACTGAGATGTTCTCTTACTGACTGAG
ATGTTCTCTTGGCATGCTAAATCATGGATAAATGTGAACCAAAATATGGTGCAAGATACGAGACA
TGAATATAGTCCAACCATCAGCATCTCATCATGATTTTAACTGTGCGTGATATAAACTCTTAAAG
ATATGTTGACAAAAAGTTATCTATCATCTTTTACTTTGCCAGTCATGCAATGTGAGTTTGCCAC
ATGATAATCACCTTCATCAGAAATGGGACCGCAAGTGGTAGGCAGTGTCCCTTCTGCTTGAACCC
TATTGAAACCAATTTAAACTGTGTACTTTTTAAATAAAGTATATTAAATCATAAAAA
AAAAA

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CCATGCGTCAACTCCCAACTTCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCCTCCAGC
CAATGCGCGTGGCCTGGGCCTTTGTGAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA
CCTCCCTGTCCCCTGCGTGGGGACAGGCCAAGATTCTCTGGAAACAGTGAAGCTATGGGCTGACA
CCTTCGGCGGGGACCTGTATAACACTGTGACCAAATACTCAGGCTCTCTCTTGTGCTGAGAAGAAGT
ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGGTGGATGGCTTGGAGCTGGTGAAGTCTTCT
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTTCGAGGCGGTCCAGAATCTGGTGGAGCTGCCG
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCTGA
TCAACGAGAGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG
CTCACTTCAGCAACCTGCCGTTGAACACCTCCATCAGCAGCGTGCAGCTGCCCACCAACGTGTACA
ACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCGTGGAGA
ACTTCAGAGAGACCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGGATTCTTCAGGATCT
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTACTGCCGAAACCGCGGCT
GGTACATTCAAGCTGCTACTTCTCCCAAGGACATAGTGATTTTGGTGGACGTGAGCGGCAGTATGA
AGGGGCTGAGGATGACTATTGCCAAGCACACCATCACCACCATCTTGGACACCCTGGGGGAGAATG
ACTTCGTAAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC
TCGTCCAGGCGGACCGAGACAATCGAGAGCATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAG

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GTGTGGGGGTCGTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA
AGCAAAGGAAGCCCTGCAACCAAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC
CGGTGTTTGAGAAGTATAACTGGCCAGACTGTAAGGTCCGAGTTTCACTTACCTCATTGGGAGAG
AAGTGCTTTTGTGACCGCATGAAGTGGATTGCATGCAACAACAAAGGCTACTACACGCAGATCT
5 CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCATGGTCA
TCAACCACGACCACGACATCATCTGGACAGAGGCCTACATGGACAGCAAGCTCCTCAGCTCGCAGG
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10 CCCGGTACAAGCTTGGAGTGCACGGATACGCCCTTCTGAACACCAACAATGGCTACATCCTCTCCC
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15 CCAATGACTACTTCTTACGGACATCAGCGACACCCCTTTCAGTTTGGGGGTGGTGTCTCCCGGG
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CAGACCTGGCCCTGGCCGGTGAATGCTGATCTACTGCATCACAGATATTGACCCAGACCACCGGAAGC
TCAGCCAGCTAGAGGCCATGATCCGCTTCTCACCAGGAAGGACCCAGACCTGGAGTGTGACGAGG
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20 GCCTCCTGAGAAGCAGCTTGTTCGTGGGCTCCGAGAAGGTCTCCGACAGGAAGTTCTTGACACCTG
AGGACGAGGCCAGCTGTTCAACCTGGACCCGTTCCCGCTGTGGTACCGCCAGGCTCAGAGCATC
CTGCTGGCAGCTTCTGCTTCAACCTCCGCTGGCGAGAAGGACCAAGAGTGCAGGTTGAACCCATGG
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GCGTCCAAATGAAGCTGGAATTCCTCCAGCGCAAATTCGGGCGGCAACGCGGCAGTGCAGCACTG
25 TGGATGGGCGGTGCACACAGAGCTGCGAGGACAGTGTGACTGCTTCTGTCATCGACAACAACG
GGTTCATTCTGATCTCCAAGAGGTCCCGAGAGACGGGAAGATTTCTGGGGGAGGTGGATGGTGCTG
TCTGACCCAGCTGCTCAGCATGGGGGTGTTTCAGCCAAGTGACTATGTATGACTATCAGGCCATGT
GCAAACCTCGAGTCACCACCACAGTGCAGCCAGCCCCCTGGTCAGCCCAATTTCTGCCTTCTTGA
CGGCGACCAGGTGGCTGCTGCAGGAGCTGGTGTCTTCTGCTGGAGTGGAGTGTCTGGGGCTCCT
30 GGTACGACAGGGGCGGAGGCCAAAAGTGTCTTCCATCACTCCACAAAACAGAAAGCAGGACC
CGCTGCAGCCCTGCGACAGGAGTACCCGCTGTTTCGTGTACAGCCGGCCATCCGGGAGGCCAACG
GGATCGTGGAGTGGGGCCCTGCCAGAAGGTATTTGTGGTGCAGCAGATTCCCAACAGTAACCTCC
TCCTCCTGGTGACAGACCCACCTGTGACTGCAGCATCTTCCACCAAGTGTGCAGGAGGCGACAG
AAGTCAAATATAATGCCTCTGTCAAATGTGACCGGATGCGCTCCAGAAAGCTCCGCCGGCGACCAG
35 ACTCCTGCCACGCCTTCCATCCAGAGGAGAATGCCAGGACTGCGGCGGCGCCTCGGACACCTCAG
CCTCGCCGCCCTACTCCTGCTGCCTGTGTGTGCCTGGGGGCTACTGCCCAACTCCTGCGGTGAC
ACCACCCAGCCTGACCTGTGTTTTGGCAAGGTGATCCTTCCAGAGCCATCCCAAAAAGTCAGCACT
GACATGGGATGCAGCTAACTGCAGTTGGGTGCCCCCAGGCCAACGCTCCTCTCAATCCTGGGCTG
GTGGCCCCCTGGTCCGGAGAATGCTGGATGGAACAGGAAACCAATCACCTGGCACCATTCTCAAGA
40 TGCTTCAATGGTGCCCGGTACCATCTGCCCTAGGTCTCAACATGAGCATACTTCTGACCTAACCTTC
CTGTCTCCTCTTCGGGAAGCCAGCGTGAGCTCAGCTTGGACCAAGACAAAATAATTTAGTTCTTCC
TGTAATCCAGAGTCCAGACCCAGCCAAGAAAGGGTCAGTTGTTTCTGACCTTTCTGTGCGAGTGG
TCTCTGGTAGAACCCAAGGACTTCTGGGTACTGAGAAGCAGCAGCAGAATGAGGCCAAATGCAGAG
ATGAGGCTAAGGCAAGAATATGCCCAACTAAAGCATAGATTCCCAAGTGAAGGCTCATGGTGGG
45 AGGCCACTCACCTTCTAGCTGCTGCTCGAAAAGGTTTTGACTGTGTTGGGGTGGGGGTGGGTAA
GGGAATGGTCAAGACTGAGAAAGGAATGAAATCCATTAGGAAATATCGACAGGGCTACACGTGAT
GTCCCCAACTGCTGCTATTGAAGAACTTCCCAAACTTCTTTACAAAGCCCTAAAGGAAAGTTTG
CATCTATGAAAAGCCCAATAGGCTGAGACATCCAATTGCTGCATGGAAATTGATGTACATTACAGGG
ACGGCAAAAATAGCTGTAAAATAGTGAAAAGAGCAGTGGTTGTGCTCTTTTCTGGCCAATGATTT
50 ACAAAGAATCTACTTGACTCTGTCCCTGGAGTGAAATCCTTAGGGTTGGAACCTGTGGGAACATT
CCAATTGCTAAGCAGGGTCCACTGGGAGGGAAGCTCTATCTGGGAACCTACCCCCAGCGCACACA
CATCTCCCCCAGGGTCCCAAGGCCCGCAGCTTCTCCCCGACCAAAACCCCAAGACCTGGATCCC
AGGAGACAACAGTCTCCACATGAGAGCAACATTAAGGGCAAAGCCATGGAGAAATGTGGGAGAGGC
CGGCCTCAAATCTTTCCATTTAACAACCCCAAGTGATGGGTATGGACAGCATGCAGGGCTTTTGGG
55 GCGCTTCCCCCGCTCCTCCATCACCTCAGCTCCACACTTCAAAGTTCAAGTTCAAAGCTGTTAC
AAGTTTCTACACAGCAATAGCCCTAAGTTCCTCTAGAGTAGGCCAAATGCCAACTCTGTAAAC
ACACTTACATTATCGGTTACAGAATGTCACTCTTACCATCATGTCTTGCAACAACCCCTGTGAGGGC
AGTATTAATGCCCCCTTACAGCAGAAGACACTGCAGCTCGAAGACAGCTTAAGTGGCAGAATAATG
CTAGAACAGCTAAGGTTTACATGTACCAATAACATGTTTCAGCTCATTCCATCCTCACAACAGCC
CCCTGAAAGTGGGTACTATCATTAGTCCCATGTTATAGAACTGCAGCAGAGTTGAAAATTGCCTC

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CAAATTACCGGAAGAGTGTATGAAGATTGAATGTGATGTATTACGTAACATGCTTGAAACTGCCT
GGCATATACTAAACGCTAAATAAATACATGCTAACTGCAAAAAAAAAAAAAAAAAAAAA

5 (2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

10 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

(A) NAME/KEY:

15 (B) LOCATION:

(D) OTHER INFORMATION: $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

20 MAGPGSPRRASRGASALLAAALLYAALGDVVRSEQQIPLSVVKLWASAFGGEIKSIAAKYSGSQLL
QKKYKEYEKDVAIEEIDGLQLVKKLAKNMEEMFHKKSEAVRRLVEAAEEAHLKHEFDADLQYEFN
AVLINERDKDGNFLELGKEFILAPNDHFNNLPVNISLSDVQVPTNMYNKDPAIVNGVWSES LNKV
25 GSMKGLRLTIAKQTVSSILDTLGDDDDFFNIIAYNEELHYVEPCLNGLTVQADRTNKEHFREHLDKL
FAKGIGMLDIALNEAFNILSDFNHTGQGSICSQAIMLITDGAVDTYDTIFAKYNWPDRKVRIFTYL
IGREAAAFADNLKWMACANKGFFTQISTLADVQENVMEYLVLSRPKVIDQEHVWTEAYIDSTLT
DDQGPVLMTTVAMPVFSKQNETRSKGILLGVVGTDPVPKELLKTI PKYKLGIGHYAFAITNNGYIL
THPELRLLYEEGKKRRKPNYSSVDLSEVEWEDRDDVLNRNAMYNRKTGKFSMEVKKTVDKGKRVLM
30 TNDYYTDTIKGTPFSLGVALSRGHGKYFFRGNVTIEEGLHDLEHPDVSLADEWSYCNLDLHPEHRH
LSQLEAIKLYLKKEPLLQCDKELIQEVLFDVVSAPIEAYWTSIALNKSENSDKGVEVAFLGTRT
GLSRINLFVGAELTNQDFLKAGDKENIFNADHFPLWYRRAAEQIPGSFVYSIPFSTGPVNKSNV
TASTSIQLLDERKSPVVAAGVIQMKLEFFQRKFWTASRQCASLDGKCSISCDDETVCYILIDNNGF
ILVSEDYDTQDFFGEIEGAVMNKLLTMGSFKRITLYDYQAMCRANKESSDGAHGLLDPYNAFLSA
35 VKWIMTELVLFLVEFNLCSWWHSDMTAKAQKQLKQTLPCDTEYPAFVSERTIKETTGNIACEDCSK
SFVIQQIPSSNLFMVVDSSCLCESVAPITMAPIEIRYNESLKCERLKAQKIRRRPESCHGFHPEE
NARECGGAPSLQAQTVLLLLPLLLMLFSR

40 (2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

45 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

(A) NAME/KEY:

50 (B) LOCATION:

(D) OTHER INFORMATION: $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

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MPATPNFLANPSSSSRWIPLQMPVAWAFVQKTSALLWLLLLGTSLSPAWGQAKI PLETVKLWADT
FGGDLNTVTKYSGSLLLQKKYKDVESSLKIEEVDGLELVRKFSEDMENMLRRKVEAVQNLVEAAE
EADLNHEFNESLVFDYYNSVLINERDEKGNFVELGAEFLLSNAHFSNLPVNTSISVQLPTNVYN
KDPDILNGVYMSEALNAVFVENFQRPDPTLTWQYFGSATGFFRIYPGIKWTPDENG VITFD CRNRGW
YIQAATSPKDIVILVDVSGSMKGLRMTIAKHTITITLDTLGENDFVNIIAYNDYVHYIEPCFKGIL
VQADRDNRHFKLLVEELMVKGVGVDQALREAFQILKQFQEAQGS LCNQAIMLISDGAVEDYEP
VFEKYNWPDCKVRVFTYLIGREVSFADRMKWIACNNKGYTQISTLADTQENVMEYLHVLSRPMVI
NHDHDIIWTEAYMDSKLLSSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGS DVALRELMKLAP
RYKLG VHG YAFLNTNNGYILSHPD LRPLYREGKKLKPKPNYSVDLSEVEWEDQAESLRTAMINRE
TGTLSMDVKVPMDKGKRVLFLTNDYFFTDISDTPFSLGVVLSRGHG EYILLGNTSVEEGLHDL LHP
DLALAGDWIYCITDIDPDHRKLSQLEAMIRFLTRKDPDLECEELVREVLFDAVVTAPMEAYWTAL
ALNMSESEHVVDM AFLGTRAGLLRSSLFVGSEKVS DRKFELTPEDEASVFTLDRFPLWYRQASEHP
AGSFVFNLRWAEGPESAGEPMVVTASTAVAVTVDKRTAIAAAAAGVQMKLEFLQRKFWAATRQCSTV
DGPCTQSCEDSD LDCFVIDNNGFILISKRSRETGRFLGEVDGAVLTQLLSMGVFSQVTMYDYQAMC
KPSSHHSAAQPLVSPISAFLTATRWLLQELVLFLEWSVWGSWYDRGAEAKSVFHHSHKHKKQDP
LQPCDTEYPVFVYQPAIREANGIVECGPCQKVFVQQIPNSNLLLLVTDP TCDCSIFPPVLQEATE
VKYNASVKCDRMRSQKLRRRPDSCHAFHPEENAQDCGASDTSAS PPLLLL PVCAGWLLPQLLR

(2) INFORMATION FOR SEQ ID NO: 7

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION:

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

AGGATGGCCCTGGGGAAAAGAAGA

(2) INFORMATION FOR SEQ ID NO: 8

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: 3' primer for $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

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ATCATCAATGAGGACACAGA

(2) INFORMATION FOR SEQ ID NO: 9

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- 10 (ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: 5' primers used for RT-PCR of $\alpha 2\delta$ -C
- 15 (iii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
AGAACGAAACCAGATCGAAG

20 (2) INFORMATION FOR SEQ ID NO: 10

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- 25 (ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: 3' primer used for RT-PCR of $\alpha 2\delta$ -C
- 30 (iii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
35 CGATTACCATAGCATTCTC

(2) INFORMATION FOR SEQ ID NO: 11

- 40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- 45 (ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:

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(D) OTHER INFORMATION: primer for $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

5 CTACCAAGCCATGTGTA

(2) INFORMATION FOR SEQ ID NO: 12

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

15 (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primer to amplify mouse $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

AGAACGAAACTAGGTCAAAG

(2) INFORMATION FOR SEQ ID NO: 13

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

30 (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

35 (D) OTHER INFORMATION: 3' primer to amplify mouse $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

CGATTACCATGGCATTTCGT

40

(2) INFORMATION FOR SEQ ID NO: 14

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

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(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

5 (D) OTHER INFORMATION: rat sequence for $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

10 GATTCTTCTGGGTGTGGTTGGCACAGATGTCCCAGTAAAAGAGCTTCTGAAGACCATCCCCAAATA
CAAGTTAGGAATTCATGGTTATGCCCTTTGCCATCACGAATAATGGATACATCTTGACACACCCGGA
GCTCAGGCCCCCTGTATGAAGAAGGGAAAAAGCGAAGGAAGCCTAATTACAGTAGTGTGGATCTCTC
GGAAGTCGAGTGGGAAGATCGGGATGATGTGTTACGAAATGCCATGGTAAATCGAC

(2) INFORMATION FOR SEQ ID NO: 15

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

25 (D) OTHER INFORMATION: (1690-1761) $\alpha 2\delta$ -D, human splice

variant

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

30 CCATGCCTGCAACTCCCAACTTCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCCTCCAGC
CAATGCCCCTGGCCTGGGCCTTTGTGCAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA
CCTCCCCTGTCCCCTGCGTGGGGACAGGCCAAGATTCTCTGGAAACAGTGAAGCTATGGGCTGACA
CCTTCGGCGGGGACCTGTATAACACTGTGACCAAACTACTCAGGCTCTCTCTTGCTGCAGAAGAAGT
35 ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGGTGGATGGCTTGGAGCTGGTGAGGAAGTTCT
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAGCTGCCG
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCTGA
TCAACGAGAGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG
CTCACTTCAGCAACCTGCCGCTGAACACCTCCATCAGCAGCGTGCAGCTGCCACCAACGTGTACA
40 ACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCGTGGAGA
ACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGGATTCTTCAGGATCT
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTGAAGTGGCGGAGTATGA
GGGTACATTCAAGCTGCTACTTCTCCCAAGGACATAGTGATTTTGGTGGACGTGAGCGGCAGTATGA
45 ACTTCGTTAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC
TCGTCCAGGCGGACCGAGACAATCGAGAGCATTTCAAAGTCTGGTGGAGGAGTTGATGGTCAAAG
GTGTGGGGGTCTGTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA
AGCAAGGAAGCCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC
CGGTGTTTGAAGAAGTATAACTGGCCAGACTGTAAGGTCCGAGTTTCACTTACCTCATTGGGAGAG
50 AAGTGTCTTTTGTGACCGCATGAAGTGGATTGCATGCAACAACAAGGCTACTACACGCAGATCT
CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCCATGGTCA
TCAACCACGACCACGACATCATCTGGACAGAGGCCTACATGGACAGCAAGCTCCTCAGCTCGCAGG

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
(B) LOCATION:

(D) OTHER INFORMATION: human variant $\alpha 2\delta$ -D, EDGE screen

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

CCATGCCTGCAACTCCCAACTTCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCCTCCAGC
CAATGCCCCTGGCCTGGGCCTTTGTGCAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA
CCTCCCTGTCCCCTGCGTGGGGACAGGCCAAGATTCCCTCTGGAAACAGTGAAGCTATGGGCTGACA
CCTTCGGCGGGGACCTGTATAACACTGTGACCAAATACTCAGGCTCTCTCTTGCTGCAGAAGAAGT
ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGGTGGATGGCTTGGAGCTGGTGAGGAAGTTCT
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAGCTGCCG
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCCTGA
TCAACGAGAGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG
CTCACTTCAGCAACCTGCCGGTGAACACCTCCATCAGCAGCGTGCAGCTGCCACCAACGTGTACA
ACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCGTGGAGA
ACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGGATTCTTCAGGATCT
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTGACTGCCGAAACCGCGGCT
GGTACATTCAAGCTGCTACTTCTCCCAAGGACATAGTGATTTTGGTGGACGTGAGCGGCAGTATGA
AGGGGCTGAGGATGACTATTGCCAAGCACACCATCACCACCATCTTGGACACCCCTGGGGGAGAATG
ACTTCRTTAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC
TCGTCCAGGCGGACCGAGACAATCGAGAGCATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAG
GTGTGGGGTTCGTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA
AGCAAGGAAGCCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC
CGGTGTTTGAGAAGTATAACTGGCCAGACTGTAAGGTCCGAGTTTTCACTTACCTCATTTGGGAGAG
AAGTGTCTTTTGTGACCGCATGAAGTGGATTGCATGCAACAACAAGGCTACTACACGCAGATCT
CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCATGGTCA
TCAACCACGACCACGACATCATCTGGACAGAGGCCTACATGGACAGCAAGCTCCTCAGCTCGCAGG
CTCAGAGCCTGACACTGCTCACCCTGTGGCCATGCCAGTCTTCAGCAAGAAGAACGAAACGCGAT
CCCATGGCATTCTCCTGGGTGTGGTGGGCTCAGATGTGGCCCTGAGAGAGCTGATGAAGCTGGCGC
CCCGGTACCAAGCTTGGAGTGCACGGATACGCCTTTCTGAACACCAACAATGGCTACATCCTCTCCC
ATCCCGACCTCCGGCCCCCTGTACAGAGAGGGGAAGAACTAAAACCCAAACCTAACTACAACAGTG
TGGATCTCTCCGAAGTGGAGTGGGAAGACCAGGCTGAATCTCTGAGAACAGCCATGATCAATAGGG
AAACAGGTACTCTCTCGATGGATGTGAAGGTTCCGATGGATAAAGGGAAGCGAGTTCTTTTCTGA
CCAATGACTACTTCTTCACGGACATCAGCGACACCCCTTTTCAGTTTGGGGGTGGTGTGTCCCGGG
GCCACGGAGAATACATCCTTCTGGGGAACACGTCTGTGGAAGAAGGCCTGCATGACTTGCTTACC
CAGACCTGGCCCTGGCCGGTGACTGGATCTACTGCATCACAGATATTGACCCAGACCACCGGAAGC
TCAGCCAGCTAGAGGCCATGATCCGCTTCTCACCAGGAAGGACCCAGACCTGGAGTGTGACGAGG
AGCTGGTCCGGGAGGTGCTGTTTGACGCGGTGGTGACAGCCCCCATGGAAGCCTACTGGACAGCGC
TGGCCCTCAACATGTCCGAGGAGTCTGAACAGTGGTGGACATGGCCTTCTGGGACCCGGGCTG
GCCTCCTGAGAAGCAGCTTGTTTCGTGGGCTCCGAGAAGGTCTCCGACAGGAAGTTCTTGACACCTG
AGGACGAGGCCAGCGTGTTCACCCTGGACCGCTTCCCGCTGTGGTACCGCCAGGCCTCAGAGCATC
CTGCTGGCAGCTTCGTCTTCAACCTCCGCTGGGCAGAAGGACCAGAAAGTGCGGGTGAACCCATGG
TGGTGACGGCAAGCACAGCTGTGGCGGTGACCGTGGACAAGAGGACAGCCATTGCTGCAGCCGCGG
GCGTCCAATGAAGCTGGAATTCCTCCAGCGCAAATTCCTGGGCGGCAACGCGGCAGTGCAGCACTG
TGGATGGGCCGTGCACACAGAGCTGCGAGGACAGTGATCTGGACTGCTTCGTTCATCGACAACAACG
GGTTCATTCTGATCTCCAAGAGGTCCCGAGAGACGGGAAGATTTCTGGGGGAGGTGGATGGTGTCTG
TCCTGACCCAGCTGCTCAGCATGGGGGTGTTTCAGCCAAGTGACTATGTATGACTATCAGGCCATGT
GCAAACCCCTCGAGTCACCACCACAGTGCAGCCACGCCCTGGTTCAGCCCAATTTCTGCCTTCTTGA

CGGCGACCAGGTGGCTGCTGCAGGAGCTGGTGTCTGTGAGTGGGGGTAGACACGGGGCTGGTGGAG
GCTGCATGCGAGGGTGGCTTAGGAGGGTGTCTTGATCAGGAGGCTGCAAGGTCTCCAGGACAACC
CACTTGCTACCAAGACCCCGGGGAAGGAGGGCACAATCCCTGGGCATGGACGCCACCTCTTCCCTG
CATGCTTGCCCCCTGGGAGGGACCTCATTGCTCAACCAGAGCCCTCAAGCAGGGAAGAGGGTGTCTT
5 GGAGGAGAGGGGATGGGCCGGGGGCTGTGAGGGATACTCCAGCTCCTTGGGAACCCAAAGTCGGGAG
GGCTCAGAGGTCTCCGAGATTAGTCTGTGTCTGACAGGTTCTGTGCTGGAGTGGAGTGTCTGGGG
CTCCTGGTACGACAGAGGGGGCCGAGGGTGAGTGCACGGAGCTGCAGGGCCATGTGCTGAAGAGCAG
TGGCATTTTTGGTCCACTAACGTGAGACCATTCCCTGTGGGGTGGGTGACAGTGGGGATAGGTGACC
CTGAAGCATCGTTGTTACATCTCACCTGCGTGGCCTTCTCTCATCACATCCCTCACTCCTGGCT
10 CTGTGTGTGACATCATCTTGGGACACCGCCACTCCATGTGCCATCATCACCACCCCATGACATCCT
GCCCTCATGTGCCACCATGTTTTCCTGTGCCGTGTCCACCCTGTGCTGGGCTTATGTTCGGGCCAG
CCAAAAGTGTCTTCCATCACTCCCAACACACAAGAAGCAGGACCCGCTGCAGCCCTGCGACACGG
AGTACCCCGTGTTCGTGTACCAGCCGG: CCATCCGGGAGGCCAACGGGATCGTGGAGTGCGGGCC
TGCCAGAAGGTATTTGTGGTGCAGCAGATCCCAACAGTAACCTCCTCCTCCTGGTGACAGACCCC
15 ACCTGTGACTGCAGCATCTTCCCACAGTGCTGCAGGAGGCGACAGAAGTCAAATATAATGCCTCT
GTCAAATGTGACCGGATGCGCTCCCAGAAGCTCCGCCGGCGACCAGACTCCTGCCACGCCTTCCAT
CCAGAGGAGAAATGCCAGGACTGCGGYGGCGCCTCGGACACCTCAGCCTCGCCGCCCTACTCCTG
CTGCCTGTGTGTGCTGGGGCTACTGCCCCACTGCTGCGGTGACACCACCCAGCCTGACCTGTG
TTTTGGCAAGGTGATCCTTCCAGAGCCATCCCAAAAAGTCAGCACTGACATGGGATGCAGCTAAT
20 GCAGTTGGGTGCGCCCCAGGCCAACGCTCCTCTCAATCCTGGGCTGGTGGCCCCCTGGCTCCGGAGA
ATGCTGGATGGAACAGGAAACCAATCACCTGGCACCACCTTCAAGATGCTTCATGGTGCCCGGTAC
CATCTGCCCTAGGTCTCAACATGAGCATACTTCTGACCTAACCTTCTGTCTCCTCTTCGGGAAGC
CAGCGTGAGCTCAGCTTGGACCAAGACAAAATAATTTAGTTCTTCTGTACTCCAGAGTCCAGACC
CAGCCAAGAAAGGGTCAGTTGTTTCTGACCTTTTCTGTGCGAGTGGTCTCTGGTAGAACCCAAGGA
25 CTTCTGGGTACTGAGAAGCAGCAGCAGAATGAGGCCAAATGCAGAGATGAGGCTAAGGCAAGAATA
TGCCCCAACTAAAGCATAGATTCGCCAAAGTGAGGCTCATGGTGGGAGGCCACTCACCTTCCTAGC
TGCTGCTCGAAAAGGTTTTGACTGTGTGGGGTGGGGGTGGGTAAGGGAATGGTCAAGACTGAGA
AAGGAATGAAATCCATTCAGGAAATATCGACAGGGCTACACGTGATGTCCCCAACTGCTGCTATT
GAAGAACTTCCCCAAACTTCTTTTACAAAGCCCTAAAGGAAAGTTTGCATCTATGAAAAGCCAATAG
30 GCTGAGACATCCAATTGCTGCATGGAATTGATGTACATTAGGGGACGGCAAAAATAGCTGTAAA
ATAGTGAAAAAGAGCAGTGGTTGTGCTCTTTTCTGGCCAATGATTTACAAAAGAATCTACTTGACT
CTGTCCCTGGAGTGAAATCCTTAGGGTTGGAACCTTGTGGGAACATTCCAACCTTGCTAAGCAGGGTC
CACTGGGAGGGAAGCTCTATCTGGGAACACCCCCAGCGCACACATCTCCCCCAGGGTCCCAA
GGCCCCCGCAGCTTCTCCCCCGACCAACCCCAAGACCTGGATCCCAGGAGACAACAGTCTCCACA
35 TGAGAGCAACATTAAGGGCAAAGCCATGGAGAAATGTGGGAGAGGCCGGCCTCAAATCTTTCATT
TAACAAACCCCAAGTGATGGGTATGGACAGCATGCAGGGCTTTTGGGGCGCTTCCCCCGCTCCTCC
ATCACCTCAGCCTCCACACTTCAAAGTTCAAAGTTCAAAGCTGTTCAAAGTTTCTTACCAGCAAATA
GCCCTAACTTGCCCTCTAGAGTAGGCCAAATGCCAACTCTGTAAAACACACTTACATTATCGGTTAC
AGAATGTCACTCTTACCATCATGTCTTGCAACAACCCTGTGAGGGCAGTATTAATGCCCCCTTACA
40 GCAGAAGACACTGCAGCTCGAAGACAGCTTAAGTGGCAGAATAATGCTAGAACAGCTAAGGTTTAC
ATGTACCAAATAACATGTTTCAGCTCATTCCATCCTCACAACAGCCCCCTGAAAGTGGGTACTATC
ATTAGTCCCATGTTATAGAACTGCAGCAGAGTTGAAAATTGCCTCCAAATTACCGGAAGAGTGTA
TGAAGATTGAATGTGATGTATTACGTAACATGCTTGAAACTGCCTGGCATATACTAAACGCTAAA
TAAATACATGCTAACTGCAAAAAAAAAAAAAAAAAAAAA

(2) INFORMATION FOR SEQ ID NO: 17

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

(A) NAME/KEY:

(B) LOCATION:

(D) OTHER INFORMATION: human variant $\alpha 2\delta$ -D, EDGE screen

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

5 MPATPNFLANPSSSSRWIPLQMPVAVAFVQKTSALLWLLLLGTSLSPAWGQAKIPLETV
KLWADTFGGDLNTVTKYSGSLLLQKKYKDVESSLKIEEVDGLELVRKFSEDMENMLRR
KVEAVQNLVEAAEEADLNHEFNESLVFDYNSVLINERDEKGNFVELGAEFLESNAHFS
10 NLPVNTSISSVQLPTNVYNKDPDILNGVYMSEALNAVVENFQRDPTLTWQYFGSATGFF
DTLGENDFVNIIAYNDYVHYIEPCFKGILVQADRDNREHFKLLVEELMVGKGVVDQALR
EAFQILKQFQEAQKQSLCNQAIMLISDGAVEDYEPVFEKYNWPDCKVRVFTYLIGREVSF
ADRMKWIACNNKGYTQISTLADTQENVMEYLHVLSRPMVINHDHDIWTEAYMDSKLL
SSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGSVDVALRELMKLAPRYKLGVBHGYAFL
15 SDTPFSLGVVLSRGHGEYILLGNTSVEEGLHDLHPDLALAGDWIYCITDIDPDHRKLSQL
EAMIRFLTRKDPDLECEELVREVLFDVVTAPMEAYWTALALNMSESESHVVDMAFLG
TRAGLLRSSLFVGSEKVS DRKFLTPEDASVFTLDRFPLWYRQASEHPAGSFVFNLRWAE
GPESAGEPMVVTASTAVAVTVDKRTAIAAAGVQMKLEFLQRKFWAATRQCSTVDGPC
20 TQSCEDSDLD CFVIDNNGFILISKRSRETGRFLGEVDGAVLTQLLSMGVFSQVTMYDYQA
MCKPSSHHSAAQPLVSPISAFLTATR WLLQELVLFLEWSVWGSWYDRGAEAKSVFHH
SHKHKKQDPLQPCDTEYPVFVYQPAIREANGIVECGPCQKVFVVQQIPNSNLLLLVTDPTC
DCSIFPPVLQEATEVKYNASVKCDRMRSQKLRRRPDSCHAFHPEENAQDCGGASDTSASP
PLLLPVCAWGLLPQLLR

(2) INFORMATION FOR SEQ ID NO: 18

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

GCGAGGACAGTGATCTGG

(2) INFORMATION FOR SEQ ID NO: 19

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

5

(B) LOCATION:

(D) OTHER INFORMATION: 3' primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

GGGTCCTCGTTCTTGTGTTT

10

(2) INFORMATION FOR SEQ ID NO: 20

(i) SEOUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

15

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

20

(B) LOCATION:

(D) OTHER INFORMATION: nested primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

25

TCAGCCTCCACACTTCAAAG

(2) INFORMATION FOR SEQ ID NO: 21

(i) SEQUENCE CHARACTERISTICS:

30

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

35

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

TCCGCCTGGACGAGGATCC

(2) INFORMATION FOR SEQ ID NO: 22

45

-16-

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

GTGTCCAAGATGGTGGTGAT

(2) INFORMATION FOR SEQ ID NO: 23

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for human $\alpha 2\delta$ -D (d20)

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

ATCTACTGCATCACAGATATTG

(2) INFORMATION FOR SEQ ID NO: 24

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for human $\alpha 2\delta$ -D ($\alpha 2\delta$ D2)

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

-17-

GGTGAGGAAGCGGATCATG

(2) INFORMATION FOR SEQ ID NO: 25

5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
10 (ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: 5' primer mouse genomic of $\alpha 2\delta$ -B
15 (iii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:
TTCAACGAGAAGGCACAGCCT

20 (2) INFORMATION FOR SEQ ID NO: 26

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
25 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
(A) NAME/KEY: Coding Sequence
30 (B) LOCATION:
(D) OTHER INFORMATION: 3' primer mouse genomic of $\alpha 2\delta$ -B
(iii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:
35 GTTGGCACAGGCCATCCACTG

(2) INFORMATION FOR SEQ ID NO: 27

40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
45 (ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on human

(iii) MOLECULE TYPE: cDNA

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:
AGGCTGTGCCTTCTCGTTGAA

(2) INFORMATION FOR SEQ ID NO: 28

10 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

15 (ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

20 (D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on human

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:
25 GAGCCCCCAAGAAGATCG

(2) INFORMATION FOR SEQ ID NO: 29

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

30 (B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

35 (A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on human

(iii) MOLECULE TYPE: cDNA

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:
CGATCTTCTTGGGGGCTC

(2) INFORMATION FOR SEQ ID NO: 30

45

09787657-032001

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,

based on human

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

CACGATGATGACCATGTC

(2) INFORMATION FOR SEQ ID NO: 31

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,

based on mouse

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

GGCAAGACCCTACACTGTTG

(2) INFORMATION FOR SEQ ID NO: 32

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on mouse

(iii) MOLECULE TYPE: cDNA

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:
CCTGGTAATAGCGAGTGAC

(2) INFORMATION FOR SEQ ID NO: 33

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

15 (ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

20 (D) OTHER INFORMATION: 5' genomic sequence from 10kb
fragment for mouse $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

25 AAGCTTCTCTCTCATCACCAGGAGGAAGACATCATGTACTACGATGCCAAGGCTGACG
CCGAGCTGGTAAGTGTCCCCACCTTTGCCGTAGAGGATGGGGAGCAGCCAGAGCCAC
ACCTTGTTCTTCTGGGCCACAACAGTCTCAGCTGTAAAGTGGGTGTTAGGGATCCATG
CTCACCTTTCTGAACTCAACCATTTCTGTGTCGTGCTTGGTCAGCCTCTCCTTGTCCACA
GCTCCCTAGAGATCCTTGACCCTCCAGGGCGTGTCTTCATCACCATTATAGGCTAAGC
TCCCCCTGCACCATGTGGAGCAAGCAGGGTGGTAGAGTGTTGGATATCAGGGTGGTTC
30 CATCCCAGTATGAGGGGCTCTCTGGGCTCCATGGGAGTAGAGAGGAGAAAGAAATGG
ACTCCAGGACCTCCTGGGGTAGGTACATGGGAGTGAGACATGGTGACATCTAAGCCC
TGCCCAGGACAGTAGAGGCTCCTTTCCTTGTGATTTGGGGAACCTTGCATCAAGCTAT
GTAGAAGAACCCATGG

35 (2) INFORMATION FOR SEQ ID NO: 34

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

40 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

45 (B) LOCATION:

(D) OTHER INFORMATION: 3' genomic sequence from 10kb
fragment for mouse $\alpha 2\delta$ -B

09787657-032001

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

CAGGTGGCCTGTGGCTGGGCCCCCTTCTCTGAACACTCACAGTGGAGACAGGGCTGGCC
ACAGNAGACCCCATCCTTCTCTCCCTTCAGGGGCTGGGGTTGGTGGTAACAGGAACTT
CTCCCTGTTTTCAACCTGACACAGGATGGCCCTGGGGAAAAGAAGGTGAGTTGCCAG
TGGGTTATCTGGGGAGGAGTTGGCATGCCTGGAGCAGGTCTGGGGATGGAGGAGGGT
TAGGGCATGCTACAGATTTGGCAAAGCAGCTCTCCGTATCAGCAGCTTAGCCCTTAGG
CCTGGGCCAGGGGGTTCTACTATGGAGTTGACTCATTATAGCATACCTTCCCATTCCTT
TGTGTCCAGAACCAGTTAATCCTGGGTGTCATGGGCATCGATGTGGCCTTGAATGACA
TCAAAAGGCTGACTCCCAACTACACAGTAAGTGTCCACCTGCCCCTCTGCCCTGGTTT
GCTGTCCATAGTGACACAAGCCAGACTCAGCAGGGGAGACATGGGGACTGAAAGACC
GTCACAGAAAGACTTCCCAAAGGGTTTGTCTGAAGCTGTGGACAGCAAGC

(2) INFORMATION FOR SEQ ID NO: 35

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 1.8 kb mouse genomic sequence for

mouse $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

GCTTTCTTGTGGCTGCGGGCCTTGGAGTGCATGCTGAGTGGGTGAGCTCCCTGGGGGC
CGGCTGCAGGCTCCAGGCAAGCATGCTGGATGGGGGCCAGCTCACAGCTCCCTGCC
ACCCAGGCGGGCCCTTCTCCACAGGCCACAAACCACATCAGCCCTGCTTGCTACCGAG
GCCTGGATGAGGGGTAGGCTGAGATATTTCTTTGATGATTTAGAGGAGGGAGAGCAA
GAAAATCTCCCTGGAAGAGCTGGTGTGGCCCCACATGAGATCCTGGGAAATCAAAGA
AAGCCTGGGCAGGCAGAAAGCAGGGGAGGCCATGGAGATGGGTTTAGCAGGGGGCG
ACCCTGAACCTCCCAACCCAGCCTTCTGCCCTGCCCTCAGCTACCGTCATCCTCAAT
GAGCTTAACTGGACAGAGGCCCTGGAGAACGTCTTCATTGAGAACCGTAGGCAAGAC
CCTACACTGTTGTGGCAAGTCTTTGGCAGTGCCACGGGAGTCACTCGCTATTACCCAG
GTAGGCACCACTGTCTCCCTGGCCCATCCAGCACCCGTCTTGCTCCATCTCCAAGCCTA
CCCATTCTGAGGTCCATGGGGTACAATGAACCAGGTCAATCCCCATCACTCCCGCCTG
CTCCAGTCAGACCCCTTCTGCCGGGGCCGGGCCCCCTTCACCCCCTCTTTCCACAGCCACAC
CATGGCGAGCCCCCAAGAAGATTGACCTGTACGATGTCAGAAGACGACCCTGGTGAG
TGAGCAAGGGGGGTGGAGGCGAGACACCCCTCAACTCCCCATCTCTCGTGCCCGCTC
CCCTCCCTCCCAATATCCAGACCTCCGAGCAGGGCGCAGCCAGCTCTATCCAATTTTC
ATTTACACATCGCTGCCACTGGAAAAATGGATCCCATCGCCCAGGCAAGCCGCCAGC
TGCCTCTGCCCCCACGCGTGTCTGCTCCACTACCCAGCCCCCCCCACACCCACTCAGAACT
GAGAGCAGACCAGGGAAGGTGCTTCCAGGGGTAGCTAGAGCCTCCGTCAAGTCAAGC
GGCCCCACCTACTCATTTGATCCCTGGACACCCCGACCCCTCTGCTCTGCCTCTCTACA
CTACTCCATGATCTTCCCTCCCTCCATTACACAGCCAGACTCTCTGGAGTCTCTCT
AGGACAGAGGACACAAGCCACTAAAGCCTTCTGTCCCCGTGGATCACCTGCCCCTTCC
CCCTCACCTCTTGTCTTACTTAATGAGGGAACCAGATCACTCACGTACAAAGAAAAAA
AAACTGTCTTTTGTATTGAGCATGGTCTCCCCAGTGCCAGACCTATTCCAACCCCTG

5 TAGTGCGTGGTTCAGTAGAAACACAGGAATCAAGTGGGTGGAAGAAGGAAGACCCCGC
AGGTCCCGGAGGTGCCGTCTTAAGTCTTCTCACTGGCAGGTATATACAGGGGG
CCTCATCACCCAAGGACATGGTCATCATTGTGGATGTGTGAGTGAGCCTTGTAGGCTG
GTGGGATGGGCTAGGACTGGACTCTGCTTCCTGGGCACCTTATGAGGGAAGGGCGGG
AAAACCCTGAGAGCCCACATGCATGCGCCCCCTTCCGTGCCTGGTTTCCAGGAGTGGG
AGCGTGAGCGGCCTGACTCTGAAGCTGATGAAGACGTCCGTCTGTGAGATGCTAGAC
ACGCTCTCTGATGATGACTATGTGAACGTGGCCTCAGTGAGTGGCAAGGTGGCAGGC
AGGCTGGGTACCACTACCCCCATCCAACCTGCTCCCATGACAACCATCAGCCCTGTA
10 CAACAGCTGCACACTGTGTGGCCAGCCTGAAGCCACTCACCACCCCCCACTGTCCCCA
CAG

(2) INFORMATION FOR SEQ ID NO: 36

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: 5' primers to amplify rat sequences for

$\alpha 2\delta$ -C, PCR 1

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

GACAGGACCAACAAGGAGCAC

(2) INFORMATION FOR SEQ ID NO: 37

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: 3' primers to amplify rat sequences for

$\alpha 2\delta$ -C, PCR 1

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

GCCAACCACACCCAGAAGAAT

(2) INFORMATION FOR SEQ ID NO: 38

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primers to amplify rat sequences for

 $\alpha 2\delta$ -C, PCR 5

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

AACGCACCATCAAGGAGACCA

(2) INFORMATION FOR SEQ ID NO: 39

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 3' primers to amplify rat sequences for

 $\alpha 2\delta$ -C, PCR 5

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

AGGGGCAGCAGCAGCAAG

(2) INFORMATION FOR SEQ ID NO: 40

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: PCR1 product, rat $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

10 TTCAGGGAGCATTGGAACAACTTTTTGCCAAAGGGATTGGAATGCTCGATATTGCGCTGAACGAG
GCCTTCAATGTACTGAGCGATTTCAACCACACCGGACAAGGAAGCATTGTCAGCCAGGCCATTATG
CTCATAACCGATGGGGCARTGGACACCTACGAYACCATCTTTGCAAAGTACAATTGGCCAGAGCGA
AAGGTTCGAATCTTCACTTACCTCATTTGGACGAGAGGCTGCTTTTGCAGACAATCTCAAGTGGATR
GCTTGTGCTAACAAAGGATTTTTCACCCAGATCTCCACCTTGGCTGATGTGCAGGAAAATGTCATG
GAATACCTCCATGTACTCAGTCGACCCAAAGTCATCGACCAGGAACATGATGTGGTGTGGACCGAA
GCGTACATCGACAGCACTCTCCCTCAGGCTCAAAGCTTGCTGATGATCAGGGCCTCGTCTTGATG
ACCACAGTGGCCATGCCTGTGTTTAGTAAGCAGAACGAACTAGGTCAAAGGGC

15

(2) INFORMATION FOR SEQ ID NO: 41

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

20

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

25

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: PCR5 product, rat $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

35 CAGGGAACATTGCTTGTGAAGAYTGCTCCAAGTCCTTTGTCATCCAGCAAATCCCAAGTAGCAATC
TGTTTCATGGYGGTGGTGGACAGTAGCTGTCTGTGAGTCTGTGGCTCCTATCACCATGGCACCCA
TTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGGTTAAAGGCTCAGAAGATCAGACGACGTC
CGGAATCCTGCCACGGCTTCCATCCTGAGGAGAATGCGAGAGAGTGTGGGGGTGCATCAAGTCTCC
AGGCCCAGGT

35

(2) INFORMATION FOR SEQ ID NO: 42

(i) SEQUENCE CHARACTERISTICS:

40

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

45

(ix) FEATURE:

(A) NAME/KEY:

(B) LOCATION:

(D) OTHER INFORMATION: Human $\alpha 2\delta$ -D variant

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

MPATPNFLANPSSSSRWIPLQPMVAVAFVQKTSALLWLLLLGTSLSPAWGQAKIPLETV
KLWADTFGGDLNTVTKYSGSLLLQKKYKDVESSLKIEVDGLELVRKFSEDMENMLRR
KVEAVQNLVEAAEEADLNHEFNESLVFDYNSVLINERDEKGNFVELGAEFLLESNAHFS
NLPVNTSISSVQLPTNVYNKDPDILNGVYMSEALNAVVFENFQORDPTLTWQYFGSATGFF
RIYPGIKWTPDENGVITFDCRNRGWYIQAATSPKDIVILVDVSGSMKGLRMTIAKHTITTI
LDTLGENDFXNIIAYNDYVHYIEPCFKGILVQADRDNREHFKLLVEELMVKGVGVDQAL
REAFQILKQFQEAQKQSLCNQAIMLISDGAVEDYEPVFEKYNWPDCKVRVFTYLIGREVSF
ADRMKWIACNNKGYTQISTLADTQENVMEYLHVLSRPMVINHDHDIIWTEAYMDSKLL
SSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGSVALRELMKLAPRYKLGVHGYAFL
NTNNGYILSHPDLRPLYREGKKLKPKPNYNSVDLSEVEWEDQAESLRTAMINRETGTLSM
DVKVPMDKGKRVLFLTNDYFFTDISDTPFSLGVVLSRGHGHEYILLGNTSVEEGLHDLHPD
LALAGDWIYCITDIDPDHRKLSQLEAMIRFLTRKDPDLECDDEELVREVLFDVAVVTAPMEA
YWTALALNMSESEHVVDMAFLGTRAGLLRSSLFVGSEKVS DRKFLTPEDEASVFTLDRF
PLWYRQASEHPAGSFVFNLRWAEGPESAGEPMVVTASTAVAVTVDKRTAIAAAAGVQM
KLEFLQRKFWAATRQCSTVDGPCTQSCEDSDLD CFVIDNNGFILISKRSRETGRFLGEVDG
AVLTQLLSMGVFSQVTMYDYQAMCKPSSHHSAAQPLVSPISAFLTATR WLLQELVLVS
GGRHGAGGGCMRGWLRRVSLIRRLQGLQDNPLATKTPGKEGTIPGHGRHLPACPLGG
TSLLNQSPQAGKRVS WRRGDGPGA VRDTPAPWEPKSGGLRGLRDSVLC LTGSCWSGVSG
APGTTEGPRVSARSCRAMC

(2) INFORMATION FOR SEQ ID NO: 43:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: >1907 α 28-C, potent. soluble form

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

TACTATAGGGCGGCGCGAATTCGGCACGAGGCGGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC
GCCCACCGCCCGCTCCGCGCAGCTCCCCGCGGCGGCTCTCGTCGCCGCCGCGAGCGGGCGCGTCGGA
GGGAGCCCAGCATGGCCGGGCGGCGCTCGCCGCGCGCGCTCCCGGGGGGCGCTCGGCGCTTCTCG
CTGCCGCGCTTCTCTACGCCGCGCTGGGGGACGTGGTGCGCTCGGAGCAGCAGATACCGCTCTCCG
TGGTGAAGCTCTGGGCCTCGGCTTTTGGTGGGGAGATAAAATCCATTGCTGCTAAGTACTCCGGTT
CCCAGCTTCTGCAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATTGATGGCC
TCCAAGTGGTAAAGAAGCTGGCAAAGAACATGGAAGAGATGTTTCACAAGAAGTCTGAGGCCGTCA
GGCGTCTGGTGGAGGCTGCAGAAGAAGCACACCTGAAACATGAATTTGATGCAGACTTACAGTATG
AATACTTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTTGGAGCTGGGAAAGG
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC
AAGTACCAACGAACATGTACAACAAAGACCCTGCAATTGTCAATGGGGTTTATTGGTCTGAATCTC
TAAACAAAGTTTTTTGATAGATAACTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG
CAAAGGGCTTTTTTGGCAGTATCCGGGGATTAAATGGGAACCAGATGAGAATGGAGTCATTGCCT
TCGACTGCAGGAACCGAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG
TTGACGTGAGTGGCAGCATGAAAGGACTCCGTCTGACTATCGCGAAGCAAACAGTCTCATCCATTT
TGGATACACTTGGGGATGATGACTTCTTCAACATAATTGCTTATAATGAGGAGCTTCACTATGTGG
AACCTTGCTGAATGGAACCTTGGTGCAAGCCGACAGGACAAACAAAGAGCACTTCAGGGAGCATC

5 TGGACAAACTTTTTCGCCAAAGGAATTGGAATGTTGGATATAGYTCTGAATGAGGCCTTCAACATTC
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG
GGGCGGTGGACACCTATGATACAATCTTTGCAAATACAATTGGCCAGATCGAAAGGTTGCGCATCT
TCACATACCTCATTGGACGAGAGGCTGCGTTTGCAGACAATCTAAAGTGGATGGCCTGTGCCAACA
10 AAGGATTTTTTACCCAGATCTCCACCTTGGCTGATGTGCAGGAGAATGTCATGGAATACCTTCACG
TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA
GCACTCTGACTGATGATCAGGGCCCCGCTCTGATGACCACTGTAGCCATGCCTGTGTTTAGTAAGC
AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCCAGTGAAAGAAC
15 TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACGGTTATGCCTTTGCAATCACAATAATG
GATATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA
ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA
TGGTGAATCGAAAGACGGGGAAGTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAGGGGTACATT
TTTCTCAAACATTTTTGCTGCTTAATTTAAACAAACCACTGTGAAAAATTAGCTTTGAAAGCTAT
ATCTGGAATAAATATCTTTCGCTGAAGG

(2) INFORMATION FOR SEQ ID NO: 44:

20 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
25 (ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: $\alpha 2\delta$ -C, (2686-2745, 2892-3001)
(iii) MOLECULE TYPE: cDNA
30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

35 TACTATAGGGCGGCCGCGAATTCGGCACGAGGCGGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC
GCCCACCGCCCGCTCCGCGCAGCTCCCCGCGGCCGCTCTCGTCGCCGCCGCGCAGCGGGCGCGTCCGA
GGGAGCCCAGCATGGCCGGGCGGGCTCGCCGCGCCGCGCTCCCGGGGGGCTCGGCGCTTCTCG
CTGCCGCGCTTCTCTACGCCGCGCTGGGGGACGTGGTGCGCTCGGAGCAGCAGATACCGCTCTCCG
TGGTGAAGCTCTGGGCCTCGGCTTTTGGTGGGGAGATAAAATCCATTGCTGCTAAGTACTCCGGTT
CCCAGCTTCTGCAAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATTGATGGCC
TCCAACCTGGTAAAGAAGCTGGCAAAGAACATGGAAGAGATGTTTCACAAGAAGTCTGAGGCCGTCA
40 GCGTCTGGTGGAGGCTGCAGAAGAAGCACACCTGAAACATGAATTTGATGCAGACTTACAGTATG
AATACCTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTTGGAGCTGGGAAAGG
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC
AAGTACCAACGAACATGTACAACAAAGACCCTGCAATTGTCAATGGGGTTTTATTGGTCTGAATCTC
TAAACAAAGTTTTTGTAGATAACTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG
45 CAAAGGGCTTTTTTAGGCAGTATCCGGGGATTAAATGGGAACCAGATGAGAATGGAGTCATTGCCT
TCGACTGCAGGAACCGAAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG
TTGACGTCAGTGGCAGCATGAAAGGACTCCGCTGACTATCGCGAAGCAAACAGTCTCATCCATTT
TGGATACACTTGGGGATGATGACTTCTTCAACATAATTGCTTATAATGAGGAGCTTCACTATGTGG
AACCTTGCCTGAATGGAATTTGGTGCAAGCCGACAGGACAAACAAAGAGCACTTCAGGGAGCATC
50 TGGACAAACTTTTCGCCAAAGGAATTGGAATGTTGGATATAGCTCTGAATGAGGCCTTCAACATTC
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG
GGGCGGTGGACACCTATGATACAATCTTTGCAAATACAATTGGCCAGATCGAAAGGTTGCGCATCT
TCACATACCTCATTGGACGAGAGGCTGCGTTTGCAGACAATCTAAAGTGGATGGCCTGTGCCAACA
AAGGATTTTTTACCCAGATCTCCACCTTGGCTGATGTGCAGGAGAATGTCATGGAATACCTTCACG
TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA

GCACCTCTGACTGATGATCAGGGCCCCGTCCTGATGACCACTGTAGCCATGCCTGTGTTTAGTAAGC
AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCCAGTGAAAGAAC
TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACGGTTATGCCTTTGCAATCACAAATAATG
GRTATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA
5 ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA
TGGTGAATCGAAAGACGGGGAAGTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAGGGAAACGGG
TTTTGGTGATGACAAATGACTACTATTATACAGACATCAAGGGTACTCCTTTTCAGTTTAGGTGTGG
CGCTTTCCAGAGGTCATGGGAAATATTTCTTCCGAGGGAATGTAACCATCGAAGAAGGCCTGCATG
10 ACTTAGAACATCCCGATGTGTCTTGGCAGATGAATGGTCCTACTGCAACACTGACCTACACCCTG
AGCACCGCCATCTGTCTCAGTTAGAAGCGATTAAGCTCTACCTAAAAGGCAAAGAACCTCTGCTCC
AGTGTGATAAAGAATTGATCCAAGAAGTCCTTTTTTGACGCGGTGGTGAGTGCCCCCATTGAAGCGT
ATTGGACCAGCCTGGCCCTCAACAAATCTGAAAATTCTGACAAGGGCGTGGAGGTTGCCTTCCTCG
GCACTCGCACGGGCTCTCCAGAATCAACCTGTTTGTGCGGGGCTGAGCAGCTCACCAATCAGGACT
15 TCCTGAAAGCTGGCGACAAGGAGAACATTTTTAACGCAGACCATTTCCCTCTCTGGTACCGAAGAG
CCGCTGAGCAGATTCCAGGGAGCTTCGTCTACTCGATCCCATTGAGCACTGGACCAGTCAATAAAA
GCAATGTGGTGACAGCAAGTACATCCATCCAGCTCCTGGATGAACGGAAATCTCCTGTGAGTGCAG
CTGTAGGCATTGAGATGAACTTGAATTTTTCCAAAGGAAGTTCTGGACTGCCAGCAGACAGTGTG
CTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGGAGACTTTTTTGGTGAGATCG
20 AGGGAGCTGTGATGAACAAATTGCTAACAATGGGCTCCTTTAAAAGAATTACCCTTTATGACTACC
AAGCCATGTGTAGAGCCAACAAGGAAGCAGCGATGGCGCCCATGGCCTCCTGGATCCCAGAAATT
GAAACAGACCCTGGAGCCTTGTGATACTGAATATCCAGCATTGCTCTCTGAGCGCACCATCAAGGA
GACTACAGGGAATATTGCTTGTGAAGACTGCTCCAAGTCCTTTGTCATCCAGCAAATCCCAAGCAG
CAACCTGTTGATGGTGGTGGTGGACAGCAACTGCCTCTGTGAATCTGTGGCCCCCATCACCATGGC
25 ACCCATTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGTCTAAAGGCCCAGAAGATCAGAAG
GCGCCCAGAATCTTGTGATGGCTTCCATCCTGAGGAGAATGCAAGGGAGTGTGGGGGTGCGCCGAG
TCTCCAAGCCCAGACAGTCCCTCCTTCTGCTCCCTCTGCTTTTGATGCTCTTCTCAAGGTGACACTG
ACTGAGATGTTCTCTTACTGACTGAGATGTTCTCTTGGCATGCTAAATCATGGATAAACTGTGAAC
CAAAATATGGTGCAACATACGAGACATGAATATAGTCCAACCATCAGCATCTCATCATGATTTTAA
30 ACTGTGCGTGATATAAACTCTTAAAGATATGTTGACAAAAAGTTATCTATCATCTTTTTACTTTGC
CAGTCATGCAAATGTGAGTTTGCCACATGATAATCACCTTCATCAGAAATGGGACCGCAAGTGGT
AGGCAGTGTCCCTTCTGCTTGAACCTATTGAAACCAATTTAAAACCTGTGTACTTTTTTAAATAAAG
TATATTAAAATCATAAAAAAAAAAAAAAAAAAAAA

(2) INFORMATION FOR SEQ ID NO: 45:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: adapter primer

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

CCATCCTAATACGACTCACTATAGGGC

(2) INFORMATION FOR SEQ ID NO: 46:

5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
10 (D) OTHER INFORMATION: adapter primer
(iii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:
15 ACTCACTATAGGGCTCGAGCGGC
(2) INFORMATION FOR SEQ ID NO: 47:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
20 (ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: probe for Northern blot
25 (iii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:
30 CTGTGAGTGCGAGCTGTAGGCATTGAGATGAACTTTTCCAAAGGAAGTTCTGGACTGCCA
GCAGACAGTGTGCTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGGAGACTTTT
TTGGTGAGATCGAGGGAGCTGTGATGAACAAATTGCTAACAATGGGCTCCTTTAAAAGAATTACCC
35 TTTATGACTACCAAGCCATGTGTAGAGCCAACAAGGAAAGCAGCGATGGCGCCCATGGCCTCCTGG
ATCCCAGAAAATFGAAACAGACCCTGGAGCCTTGTGATACTGAATATCCAGCATTCGTCTCTGAGCG
CACCATCAAGGAGACTACAGGGAATATTGCTTGTGAAGACTGCTCCAAGTCCTTTGTCATCCAGCA
AATCCCAAGCAGCAACCTGTTTCATGGTGGTGGTGGACAGCAACTGCCTCTGTGAATCTGTGGCCCC
CATCACCATGGCACCATTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGCTCAAAGGCCCA
40 GAAGATCAGAAGGCGCCAGAAATCTTGTGTCATGGCTTCCATCCTGAGGAGAATGCAAGGGAGTGTGG
GGGTGCGCCGAGTCTCCAAGCCCAGACAGTCCTCCTTCTGCTCCCTCTGCTTTTGATGCTCTTCTC
AAGGTGACACTGACTGAGATGTTCTCTTACTGACTGAGATGTTCTCTTGGCATGCTAAATCATGGA
TAACTGTGAACCAAAATATGGTGCAACATACGAGACATGAATATAGTCCAACCATCAGCATCTCA
TCATGATTTTAAACTGTGCGTGATATAAACTCTTAAAGATATGTTGACAAAAAGTTATCTATCATC
45 TTTTACTTTGCCAGTCATGCAATGTGAGTTTGCCACATGATAATCACCCCTTCATCAGAAATGGG
ACCGCAAGTGGTAGGCAGTGTCCCTTCTGCTTGAAACCTATTGAAACCAATTTAAAACCTGTGTACT
TTTTAAATAAAGTATATTAAATCATAAAAAAAAAAAAAAAAAAAAAA
50 (2) INFORMATION FOR SEQ ID NO: 48:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single

09787657-032001

5 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: Edge 5' primer
(iii) MOLECULE TYPE: cDNA

10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:
CTAGAGGCCATGATCCGCTTCCTCAC

(2) INFORMATION FOR SEQ ID NO: 49:

15 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH:
(B) TYPE:
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

20 (ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
(A) NAME/KEY: Coding Sequence
(B) LOCATION:
(D) OTHER INFORMATION: Edge 3' primer
(iii) MOLECULE TYPE: cDNA

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:
GCCACGAACAAGCTGCTTC

T00220" 4992860